

at us in a glassy, expressionless manner, worthy of the ghastly ship-mates of Coleridge's 'Ancient Mariner.' Nevertheless, the general appearance of the insect is rather sprightly than otherwise, although the absence of wings, and some other peculiarities, show it to be in the larva or pupa state, and the frothy matter with which it is surrounded, and which consists of an excrementitious fluid, is evidently intended to protect its soft body from the attacks of its enemies" (pp. 411, 412).

Although of minor importance, there are one or two points which we might suggest as capable of improvement, should a second edition ever be called for. Thus, the advantage of having at the head of each of the several divisions of the chapters *the name of the family, or tribe*, which is about to be treated of, would have been very considerable; for, owing to the light, and often amusing, style in which the volume is written, one frequently has to read through as much as a page and a half before becoming aware what the family really is which is under discussion. This is a serious impediment to a beginner,—who requires to have his attention prepared *ab initio* for the several divisions as they occur; and (which is very desirable), moreover, *his eye tutored to the names*. An epitome, also, of the subdivisions, if given at the commencement of each Order, would have been a great help to the tyro, in enabling him to discern his path beforehand, and, as it were, to *picture* it in his imagination.

These suggestions, however, are perhaps needless; for such additions can, after all, be made by the reader himself without much trouble. In everything essential the book is excellent, and will prove a useful guide for the entomological student,—to whose careful perusal we would, therefore, heartily commend it.

PROCEEDINGS OF LEARNED SOCIETIES.

ZOOLOGICAL SOCIETY.

July 14, 1857.—Dr. Gray, F.R.S., V.P., in the Chair.

ON STOASTOMIDÆ AS A FAMILY, AND ON SEVEN PROPOSED NEW GENERA, SIXTY-ONE NEW SPECIES, AND TWO NEW VARIETIES FROM JAMAICA. BY THE HON. EDWARD CHITTY.

[Continued from page 79.]

Genus III. FADYENIA, Chitty.

Spire depressed, subangular on the upper part of the last whorl, subplanulate at the periphery, subangulate below, and subplanulate round the umbilicus.

FADYENIA FADYENIANA. . See *Stoastoma Fadyenianum*, Ad. Mon. Stoast. Adams, 1849, p. 7; Cat. Phan. p. 231.

Hab. Hills S.W. of Port Henderson.

Other shells, I have reason to know, have been distributed for this.

FADYENIA BOWERBANKIANA, Chitty.*Hab.* Roaring River, Westmoreland.

Form, subdiscoidal. *Colour*, very pale tinge of brown. *Sculpture*, 24 strong equidistant (above) spiral carinæ, wider apart below, more faint round the umbilicus, and obsolete at the labrum; with a hiatus between the 13th and 14th, equal to the space occupied by 3 carinæ, at the periphery; 7 visible on the upper whorls. *Spire*, much depressed with concave outlines. *Apex*, mamillated. *Whorls*, 4, well rounded above, with a deep suture; last whorl rather large and expanded; subangular at the upper part, subplanulate at the periphery, and subangular below, subplanulate, but more convex round the umbilicus than in *F. Fadyeniana*; the whorl is much wider above than below, so that the subplanulate periphery is nearly at right angles with the outline of the spire. It is the same in *F. Fadyeniana*. *Aperture*, very slightly constricted above behind the labrum; dilated, large; rather more constricted below, behind, and at the labrum; upper third flattened almost at a right angle with the labium; well rounded below. *Labrum*, simple, white. *Labium*, on a plane with the labrum, well detached from the body-whorl; thickened and reflected towards the umbilicus, more so below than above; much rounded to the right below. *Umbilicus*, rather deep. *Labral lamella*, well defined, strong and prominent, and inflected upwards towards the umbilicus. *Operculum* —?

Height 0·041, greatest breadth 0·08, least breadth 0·063.

Named in compliment to my friend and fellow-labourer in science, Dr. L. Q. Bowerbank, M.D., of Kingston, Jamaica.

Note.—In *F. Fadyeniana* fine spiral carinæ intervene between the coarser, and all are more distantly apart.

FADYENIA GRAYANA, Chitty.*Hab.* Yallahs Hill.

Form, subdiscoidal. *Colour*, rich light brown. *Sculpture*, about 33 irregular and inequidistant, some fine and some rather strong, spiral carinæ, of which 8 or 9 are visible on the upper whorls. *Spire*, much depressed, less than in *F. Bowerbankiana*, with concave outlines. *Apex*, mamillated. *Whorls*, $4\frac{2}{3}$ rds, with a moderate suture; last whorl typical, subangulated and subplanulated as in *F. Bowerbankiana* and *F. Fadyeniana*. *Aperture*, semicircular, only slightly affected by the subangularity above and below the periphery, very slightly dilated. *Labrum*, double; outer edge pectinated by the spiral carinæ, inner edge simple, white and shining. *Labium*, white, thickened and reflected towards the umbilicus about its centre, below much curved to the right, much lower than the plane of the labrum at its lower end; widely separated from the body-whorl. *Umbilicus*, very deep and narrow. *Labral lamella* very broadly and sharply produced throughout; besides the labral lamella within the umbilicus, extending from the back of the labium to the umbilicus and body-whorl, are four or five well-produced distinct sharp lamellæ. *Operculum*, deeply concave in the centre, with a broad margin all

round, which, on that side, folds well over the labrum, especially below; much covered by numerous coarse granulations, and in the hollow on the labral side with four or more strong raised lamellæ, which are also covered with coarse granulations.

Height 0·076, greatest breadth 0·105, least breadth 0·087.

Named in compliment to Dr. J. E. Gray, British Museum.

Genus IV. STOASTOMA, Adams.

Shell subglobose.

STOASTOMA PISUM, Ad. See Mon. Stoast. Adams, 1849, p. 11; Cat. Phan. p. 228.

Sculpture, almost obsolete, very numerous raised spiral microscopic carinæ, which are well defined on the upper whorls, four or five being visible. *Labrum*, double. *Labium*, well detached from the penult whorl. *Operculum*, concave and finely granulated in its concavity.

Hab. Manchester, generally, and near Accompong Town, St. Elizabeth.—*Chitty.*

STOASTOMA PFEIFFERIANUM, Ad. See Mon. Stoast. Adams, p. 8; Cat. Phan. p. 230.

Labrum, double. *Operculum*, concave, finely granulated in its concavity; margin sharp on the labral side, rather broad, but not thickened on the labial side.

Hab. Manchester back woods.—*Chitty.*

STOASTOMA LIVESAYANUM, Chitty.

Hab. Near Ashley Hall, Trelawny.

Form, subglobose. *Colour*, pale yellow. *Sculpture*, 11 distant, blunt and raised spiral carinæ, of which 5 are visible on the upper whorls. *Spire*, conic, moderately elevated, with slightly convex outlines. *Whorls*, $4\frac{2}{3}$ rds, scarcely rounded, with a very slight suture. *Aperture*, very slightly expanded; semielliptical, widest in the upper third of the labrum, very oblique. *Labrum*, pectinated by the spiral carinæ; double, very slightly reflected. *Labium*, slightly below the plane of the labrum, well detached from penult whorl, but connected with it by five or six of the spiral carinæ; arcuated to the left above into a sharp angle with the labrum, very much curved below to the right. *Umbilicus*, very small and deep. *Labral lamella*, strongly produced above, but immediately lost in the umbilicus. *Operculum*, semielliptical, planular, with fine granulations on the labral side, and concave on the labial side, with a raised ridge all round, which is much thickened and rounded, and highly raised about the lower part of the labral side.

Height 0·081, greatest breadth 0·103, least breadth 0·08.

Named in compliment to my friend Dr. Livesay, a devoted collector of genera.

STOASTOMA, or ELECTRINA, SUCCINEUM, Sowerby, will belong to this group. See Cat. Phan. p. 228.

Genus V. METCALFEIA, Chitty.

Shell, depressed conic.

METCALFEIA CHITTYANA, Chitty. See *Stoastoma Chittyana*, Ad. Mon. Stoast. Ad. 1849, p. 10; Cat. Phan. p. 231.

Hab. Peace River, Manchester.

Operculum, very slightly concave, with two strong lamellæ crossing its centre horizontally, and on the labial side two much finer ones above, and three or four below.

METCALFEIA METCALFEIANA, Chitty.

Hab. — ? Hanover.

Form, depressed conic. *Colour*, pale horn. *Sculpture*, lines of growth visible; sixteen strong, but not much raised inequidistant spiral carinæ, those round the umbilicus being most prominent, with here and there one very fine carina intervening. On the upper whorl, 5 carinæ. *Spire*, moderately elevated with very slightly concave outlines. *Apex*, obtuse. *Whorls*, $4\frac{1}{2}$, very moderately convex, with a slightly impressed suture. *Aperture*, subsemicircular, slightly spreading. *Labrum*, subangularly produced from the body-whorl, not abruptly produced, deeply pectinated by the spiral carinæ. *Labium*, slightly detached from the body-whorl, very slightly curved below to the right; much below the plane of the labrum. *Umbilicus*, very deep and narrow. *Labral lamella*, very little, but sharply, produced, not concealing the umbilicus. *Operculum*, slightly concave, finely granulated in the hollow with three strong, apparently not serrated, horizontal lamellæ, extending from the labral side over two-thirds of the width of the operculum, and one equally strong between the first and second above extending one-third across only, the lowest slightly curved downwards.

Height 0·073, greatest breadth 0·096, least breadth 0·079.

Named in compliment to W. Metcalfe, Esq., the possessor of a fine cabinet of shells.

METCALFEIA BAQUIÉANA, Chitty.

Hab. Near "The Cave," high road, Westmoreland.

Form, depressed conic. *Colour*, rich brown, fading into faint yellow and white. *Sculpture*, 19 spiral carinæ, with one fine intervening between each pair. On the upper whorls 6 carinæ. *Spire*, moderately and rather concavely elevated. *Whorls*, $4\frac{1}{2}$, slightly rounded with a slightly impressed suture. *Aperture*, slightly expanded, shortly and roundly produced from the penult whorl, scarcely depressed; subsemicircular, rather dilated above. *Labrum*, pectinated by all the stronger carinæ, slightly scalloped. *Labium*, slightly detached from the penult whorl, rather abruptly detached from the labrum above and curved below to the right, much lower than the plane of the labrum below. *Umbilicus*, not deep. *Labral lamella*, expanded above, narrow round the umbilicus. *Operculum*, concave in the middle, seven lamellæ radiating horizontally from the labial side, one

short and central above, one (the longest) crossing the hollow, one short on the labral side, one longer (second in length), one short, and two longer (third in length) below.

Height 0·06, greatest breadth 0·089, least breadth 0·071.

Named in compliment to my friend, Mons. Baquié, of Westmoreland, Jamaica.

This shell is closely allied to *Metcalfeia Chittyana* at first glance, but differs in many minute particulars; the pectination on the labrum is alone sufficient to distinguish it; and their habitats are about sixty miles asunder. The spire is more conical than in *M. Chittyana*, spiral carinæ more distant, labium less widely detached from penult whorl, upper part of labrum more produced, apex more blunt. In *M. Chittyana* the labral lamella expands suddenly above close to where it leaves the labium, rising above the plane of the aperture, and then descending round the umbilicus in a uniform curve without projecting; in *M. Baquiéana* it does not rise above the plane; but after leaving the labium, it spreads out towards the centre of the umbilicus, and continues uniform till it is lost in the umbilicus. In the former the lower end of the labium is on a plane with the labrum, in this it is below the plane. In this, the aperture is larger and more oblique, and the last whorl is less expanded.

METCALFEIA SUTHERLANDIANA, Chitty.

Hab. Belmont, St. James.

Form, depressed conic. *Colour*, very pale horn or white. *Sculpture*, lines of growth visible; 19, rather strong, inequidistant, spiral carinæ, with an unequal number of finer ones intervening. On the upper whorls 5 carinæ. *Spire*, moderately and rather concavely elevated. *Whorls*, 5, moderately elevated, with a deep suture. *Aperture*, less than a semicircle, slightly expanded in the lower two-thirds, slightly oblique. *Labrum*, unequally and not strongly pectinated by the spiral carinæ, very slightly produced above. *Labium*, well detached from the body-whorl, attached to labrum above in a slight curve, very slightly waved in its centre, and well curved to the right below. *Umbilicus*, moderately deep, and labral lamella moderately produced. *Operculum*, —?

Height 0·072, greatest breadth 0·12, least breadth 0·079.

Named in compliment to Dr. P. Sutherland, the Arctic voyager, now Government Surveyor of Port Natal.

METCALFEIA MÖRCHIANA, Chitty.

Hab. Roaring River, Westmoreland.

Form, depressed conic. *Colour*, very pale horn. *Sculpture*, 5 strong spiral carinæ, 1 fine; 7th strong and 3 fine; 8th to 15th strong and 1 fine intervening between each pair; on the upper whorls 8 strong. *Spire*, slightly elevated, with concave outlines. *Whorls*, 4 $\frac{3}{4}$, very slightly rounded with a slight suture. *Aperture*, slightly expanded, more below than above; slightly produced abruptly from the penult whorl: more than a semicircle. *Labrum*, thin, and very

slightly reflected; pectinated by the strong carinæ. *Labium*, on a plane with the labrum above, lower below; joining the labrum with a curve above; much curved to the right, below well detached from the penult whorl. *Umbilicus*, narrow and deep. *Labral lamella*, well produced above and rather wide below. *Operculum*, moderately concave in the middle, with a wide border on the labial side, which is vertically grooved and again crossed by four or five raised horizontal plaits: labral side with about eight short horizontal lamellæ, about four extending across the hollow, and a linguiform point at the lower extremity of the labial side overlapping the labium.

Height 0·072, greatest breadth 0·1, least breadth 0·074.

Named in compliment to M. Mörch, of Copenhagen, distinguished for his knowledge of Mollusca.

METCALFEIA VERREAUXIANA, Chitty.

Hab. — ? Hanover.

Form, depressed conic. *Colour*, pale horn or yellow. *Sculpture*, 17 strong spiral carinæ with 1 fine intervening between each pair. On the upper whorls 5 strong with 1 fine intervening. *Spire*, moderately elevated, with straight outlines. *Whorls*, $4\frac{1}{2}$, moderately rounded, with a light suture. *Aperture*, scarcely separated from the body-whorl, more than a semicircle, large, rather expanded and depressed below. *Labrum*, very slightly produced above, strongly and prominently pectinated by the strong carinæ, imbricated in those round the periphery, white and shining. *Labium*, slightly rounded into the labrum above, and on the right below; very slightly reflected; on a plane with the labrum above, lower below; very slightly detached from the body-whorl. *Umbilicus*, deep and narrow. *Labral lamella*, sharp and very slightly produced. *Operculum*, moderately concave, with large coarse granulations on the upper part of the labial side, slightly lamellated horizontally; lower portion of labial side broad and spreading over the labium, with a deep groove, and terminating with a broad uplifted linguiform plait, which is distinct from the spreading upper portion.

Height 0·06, greatest breadth 0·078, least breadth 0·06.

Named in compliment to M. Verreaux, an experienced zoological collector.

METCALFEIA SINCLAIRIANA, Chitty.

Hab. Maroon Town, St. James (unique).

Form, depressed conic. *Colour*, pale horn or yellow. *Sculpture*, 9 strong spiral carinæ, with one fine intervening; on the upper whorls, 3 strong and fine ones intervening. *Spire*, slightly elevated, with rather concave outlines. *Apex*, rather acute. *Whorls*, $4\frac{1}{2}$, moderately rounded, with a slight suture. *Aperture*, slightly spreading about the periphery to below; subsemicircular. *Labrum*, very slightly produced above, more so below; broadly detached from the body-whorl, strongly pectinated by the spiral carinæ. *Labium*, well detached from the body-whorl, on a plane with the labrum above, lower below, slightly curved to the right above, much so below, much

thickened. *Umbilicus*, narrow and deep, well covered by the *labral lamella*. *Operculum*, —?

Height 0·057, greatest breadth 0·084, least breadth 0·067.

Named in compliment to Dr. Andrew Sinclair, R.N., late Colonial Secretary of New Zealand.

METCALFEIA MITCHELLIANA, Chitty.

Hab. Maroon Town, St. James (unique).

Form, depressed conic. *Colour*, pale horn. *Sculpture*, 15 strong spiral carinæ, rather inequidistant, with one very fine intervening, and about the periphery sometimes two and sometimes three fine carinæ: at the periphery the two strong carinæ are widest apart, with three fine intervening; the next division below has one fine only, and the next below, two; on the upper whorls four strong carinæ. *Spire*, slightly elevated, with rather concave outlines. *Whorls*, $4\frac{1}{2}$, slightly rounded, with a moderate suture; last whorl expanded above and falling away below. *Aperture*, semicircular, much dilated below the periphery. *Labrum*, very slightly pectinated by the strong carina, very slightly produced above. *Labium*, on a plane with the labrum above, much lower below; slightly curved to the right below, moderately detached from the body-whorl. *Umbilicus*, deep, little affected by the labral lamella. *Operculum*, —?

Height 0·07, greatest breadth 0·095, least breadth 0·077.

Named in compliment to D. W. Mitchell, Esq., the energetic Secretary of the Zoological Society of London.

METCALFEIA DOHRNIANA, Chitty.

Hab. Pedro District, St. Ann's.

Form, depressed conic. *Colour*, pale horn. *Sculpture*, 4 strong spiral carinæ and 1 fine, 1 strong and 1 fine, 1 strong and 3 fine, 1 strong and 2 fine, and 1 strong and 3 fine, 1 strong, then 8 strong with fine intervening; on the upper whorls, 5 spiral carinæ. *Spire*, slightly elevated, with concave outlines. *Whorls*, 4, very slightly rounded with a moderate suture. *Aperture*, more than a semicircle, moderately expanded, very oblique. *Labrum*, moderately produced above, reflected, much pectinated by the strong spiral carinæ. *Labium*, well detached from the body whorl, curved to the right below, straight above, almost on a plane with the labrum. *Umbilicus*, deep and moderately broad. *Labral lamella*, strong, sharp and expanding, with a projecting angular point a little below its junction with the labrum. *Operculum*, —?

Height 0·052, greatest breadth 0·079, least breadth 0·061.

Named in compliment to Herr Heinrich Döhrn, of Stettin, a zealous young conchologist.

METCALFEIA LAYARDIANA, Chitty.

Hab. —? Westmoreland.

Form, depressed conic. *Colour*, rich light brown. *Sculpture*, about 25 and slightly unequally raised, inequidistant spiral carinæ; on the upper whorls 6 or 7. *Spire*, moderately elevated, with rather

concave outlines. *Whorls*, $4\frac{1}{4}$, moderately rounded, with a moderate suture; last whorl well rounded. *Aperture*, moderately oblique, very moderately expanded and slightly deflected below, semicircular. *Labrum*, slightly produced above in a curved line, pectinated by about 15 of the spiral carinæ. *Labium*, moderately detached from the body-whorl, rather serpentine above and much curved to the right below. *Umbilicus*, deep and narrow. *Labral lamella*, but slightly expanded. *Operculum*, slightly concave, with about six horizontal raised lamellæ, nearly parallel above, but converging towards the umbilicus below, strong on the labial side, and faintly crossing over the labial side and covering the labium, with, on that side, others intervening.

Height 0·062, greatest breadth 0·086, least breadth 0·069.

Named in compliment to E. L. Layard, Esq., late of Ceylon, now Curator of the Museum, Cape Town, Cape of Good Hope.

METCALFEIA SWIFTIANA, Chitty.

Hab. Near Mr. Channer's, Santa Cruz Park, Saint Elizabeth (unique).

Form, depressed conic. *Colour*, pale horn, light brown at apex. *Sculpture*, 28 irregularly strong and inequidistant spiral carinæ; on the upper whorls 6. *Spire*, moderately elevated, with slightly concave outlines. *Whorls*, $4\frac{1}{2}$, moderately rounded, with a deep suture; last rather large. *Aperture*, slightly constricted and very slightly expanded at its margin; semicircular; slightly depressed above and slightly expanded below. *Labrum*, very slightly produced above; very slightly pectinated externally by, more or less, all the carinæ; smooth and white and shining at its extreme margin. *Labium*, well detached from body-whorl, on a plane with the labrum; much curved to the right below and reflected to the left. *Umbilicus*, deep and narrow. *Labral lamella*, widely spreading. *Operculum*, —?

Height 0·059, greatest breadth 0·087, least breadth 0·069.

Named in compliment to Robert Swift, Esq., of the Island of St. Thomas, an ardent collector.

Genus VI. PETITIA, Chitty.

Shell, globose discoid.

PETITIA PETITIANA, Chitty. See *Stoastoma Petitianum*, Ad. Ann. Lyc. New York, v. n. 2. p. 67; Contr. Conch. p. 151; Cat. Phan. p. 232.

Hab. Peace River, Manchester.

PETITIA CUMINGIANA, Chitty. See *Stoastoma Cumingianum*, Ad. Mon. Stoast. Ad. 1849, p. 9; Cat. Phan. p. 231.

Hab. —? Manchester.

Note.—If I have the right type of this shell, the *operculum*, in addition to the “numerous lamellar grains” described by Adams, *Ann. & Mag. N. Hist.* Ser. 3, Vol. i.

has 6 or 7 very slightly raised vertical lamellæ curving from above to the left below, with an inner raised margin inclosing the concavity and sloping outwards to the extreme edge of the operculum.—*Chitty*.

PETITIA ANTHONIANA, Chitty. See *Stoastoma Anthonianum*, Ad. Contr. Conch. p. 151; Cat. Phan. p. 232.

Hab. —? Manchester.

PETITIA STEVENSIANA, Chitty.

Hab. Yallahs Hill.

Form, globose-discoid. *Colour*, very light brown. *Sculpture*, 23 well-raised, inequidistant spiral carinæ, wider apart below round the umbilicus; on the upper whorls 7. *Spire*, slightly elevated, with convex outlines. *Whorls*, 4, well rounded, with a deep suture. *Aperture*, subelliptical, well detached from the body-whorl; slightly constricted and scarcely expanded, and but little deflected below. *Labrum*, double, outer edge very finely pectinated by the spiral carinæ; inner edge white, smooth, slightly thickened and reflected; continuous with the labium above, with a slight curve. *Labium*, almost straight, very slightly curved to the right below, where it is below the plane of the labrum. *Umbilicus*, deep. *Labral lamella*, produced to a saw-like tooth at some little distance below its junction with the labium; convex externally. *Operculum*, —?

Height 0·047, greatest breadth 0·086, least breadth 0·065.

Named in compliment to S. Stevens, Esq., Bloomsbury Street, London.

PETITIA FORTUNEANA, Chitty.

Hab. —? Manchester.

Form, globose-discoid. *Colour*, very pale horn. *Sculpture*, 25 spiral carinæ, about 8 on the upper whorls. *Spire*, much depressed, with convex outlines. *Whorls*, 4, moderately rounded, with a slight suture. *Aperture*, constricted at about the width of the last whorl from the labrum, and then expanded considerably at about an angle of 30°, expanded above and deflected slightly below; more than a semicircle. *Labrum*, slightly double, especially above and below, less so at the periphery; inner edge smooth, white and shining, broadly but slightly scalloped and finely pectinated by about 5 points; joined and rounded into the labium above; much produced angularly and deflected above; produced from the body-whorl at an angle of about 60°. *Labium*, straight, with a slight curve to the right below; on a plane with the labrum above, and slightly lower below. *Umbilicus*, very deep. *Labral lamella*, very sharp and narrow, not covering the umbilicus. *Operculum*, slightly concave, with apparently obsolete bars crossing it horizontally.

Height 0·043, greatest breadth 0·078, least breadth 0·061.

Named in compliment to Robert Fortune, Esq., the celebrated Chinese traveller and collector.

PETITIA ADAMSIANA, Chitty.

Hab. New Hope, Old Hope, and a smaller variety on the road east of the "Water-wheel," Westmoreland.

Form, globose-discoidal. *Colour*, reddish horn. *Sculpture*, 13 very strong spiral carinæ, with between the 1st and 2nd and 2nd and 3rd, 1 each rather less strong; between the 3rd and 4th and 4th and 5th, 3 each less strong; between the 5th and 6th, 1 less strong; between the 6th and 7th, 3 less strong; between the 7th and 8th, 1 less strong, and none between the remaining strong carinæ. Lines of growth very faint; on the upper whorls, 4 strong carinæ with intervening less strong. *Spire*, slightly elevated, with rather convex outlines. *Whorls*, $4\frac{1}{2}$, very slightly rounded and with a very slight suture; last whorl slightly swelling behind the labrum, and slightly constricted at the aperture. *Aperture*, very slightly expanded and scarcely detached from the penult whorl. *Labrum*, appressed to the body-whorl, not produced, much thickened, slightly double below; smooth and simple. *Labium*, much thickened and reflected towards the umbilicus in its centre, slightly curved to the right below; well detached from the body-whorl. *Umbilicus*, moderately deep, covered by an expansion very convex externally of the *labral lamella*, which is much produced immediately after leaving the labrum, and then becomes abruptly narrowed till it joins the body-whorl. In the labral lamella it approaches the subgenus *Agassizia*. *Operculum*, very peculiar, deeply concave in the centre and studded with very fine granulations; edge all round very much thickened and folded over in vertical plaits outside, especially at the lower end of the labial side; throughout the labial side overlapping the labium with sharp, fine, numerous raised lamellæ on the labral side.

Height 0.062, greatest breadth 0.09, least breadth 0.077.

Var. *a*.

From near "Water Wheel."

Height 0.044, greatest breadth 0.076, least breadth 0.061.

Named in honour to the memory of the late Professor C. B. Adams of America, my friend and conchological master.

PETITIA TAYLORIANA, Chitty.

Hab. — ? St. Ann's.

Form, globose-discoidal. *Colour*, pale horn. *Sculpture*, 24 fine, sharp, inequidistant, spiral carinæ, 6 of which interspersed are rather strong; on the upper whorls 5. *Spire*, very slightly elevated, with convex outlines. *Whorls*, 4, slightly rounded, with a slight suture. *Aperture*, very slightly constricted behind the labrum, and slightly expanding; scarcely detached from the body-whorl; slightly depressed above and expanded below. *Labrum*, white, shortly reflected, not produced above, very little pectinated by the stronger spiral carinæ; slightly double below. *Labium*, on a plane with labrum, straight, appressed above to the body-whorl. *Umbilicus*, rather deep and narrow. *Labral lamella*, scarcely produced. *Operculum*,

slightly concave, rather produced at the upper corner of the labial side; smooth, but not shining.

Height 0·033, greatest breadth 0·06, least breadth 0·043.

Named in compliment to T. L. Taylor, Esq., the possessor of a fine collection of shells.

: PETITIA STRICKLANDIANA, Chitty.

Hab. Roaring River, Westmoreland.

Form, globose-discoid. *Colour*, rich red-brown. *Sculpture*, lines of growth apparent; 38 inequidistant, irregularly raised, very fine spiral carinæ; on the upper whorls 8. *Spire*, very little elevated, with convex outlines. *Whorls*, $3\frac{2}{3}$ rds, well rounded, with a deep suture. *Aperture*, widely dilated, not constricted, more dilated and depressed below; very slightly detached from body-whorl. *Labrum*, very widely double, moderately produced above, inner and outer edge strongly 'pectinated' and scalloped by 6 points of the spiral carinæ. *Labium*, very little detached from body-whorl, straight above and abruptly curved below to the right; much below the plane of the labrum. *Umbilicus*, deep and rather broad. *Labral lamella*, very little produced. *Operculum*, slightly concave, with fine granulations in the hollow; labral margin with two sharp raised lamellæ round it; a small narrow linguiform point overlapping the labium at the lowest extremity on the labial side.

Height 0·049, greatest breadth 0·074, least breadth 0·055.

Named in compliment to H. E. Strickland, Esq., of Apperley Court, Tewkesbury.

PETITIA STOKESIANA, Chitty.

Hab. —? Hanover (unique).

Form, globose-discoid. *Colour*, pale horn. *Sculpture*, lines of growth visible: 4 widely separated, rather strong, slightly raised, rounded spiral carinæ; 1 finer; 2nd to 7th strong, and 1 finer close below; 8th strong (the one at the periphery strongest and rather sharp), and 2 very faint, round, and distant from the umbilicus; on the upper whorls 5. *Spire*, very little elevated, with rather concave outlines. *Apex*, somewhat mammiform. *Whorls*, 4, well rounded, with a deep suture. *Aperture*, semicircular, altogether rather depressed, very slightly constricted, not spreading, moderately detached from penult whorl. *Labrum*, scarcely produced above, thickened, slightly reflected; smooth and white, not pectinated. *Labium*, well detached from body-whorl, on a plane with labrum, almost straight within the aperture, white, thickened and expanded towards the umbilicus, much so below, but most so and somewhat pointedly in its centre. *Umbilicus*, broad and deep. *Labral lamella*, much expanded at a distance from its junction with the labrum, becoming very fine as it fades into the umbilicus. *Operculum*, —?

Height 0·049, greatest breadth 0·08, least breadth 0·061.

Named in compliment to Capt. Lort Stokes, R.N., late of H.M.S. 'Acheron,' a zealous collector.

PETITIA GREVILLEANA, Chitty.

Hab. Yallahs Hill.

Form, globose-discoid. *Colour*, pale horn. *Sculpture*, striæ of growth visible; 5 strong spiral carinæ, with 5 less strong intervening: on the upper whorls, 2 strong, with the lesser intermediate ones (this might almost be classed in the 2nd division of *Wilkinsonæa*). *Spire*, slightly elevated, with straight outlines. *Whorls*, $3\frac{2}{3}$ rds, well rounded, with a well impressed suture. *Aperture*, obliquely elliptic, more expanded in the upper than lower portion, slightly campanulate on the right owing to a slight constriction behind the labrum. *Labrum*, very slightly produced above, thickened and reflected at about its middle. *Labium*, below the plane of the labrum above, slightly curved to the right below and thickened, slightly detached from body-whorl. *Umbilicus*, not deep, broad. *Labral lamella*, slightly developed. *Operculum*, moderately concave, shining, but with very fine granulations.

Height 0.05, greatest breadth 0.069, least breadth 0.057.

Named in compliment to my friend Dr. R. K. Greville, of Edinburgh.

PETITIA CARPENTERIANA, Chitty.

Hab. Pool's Rock, Hanover.

Form, globose-discoid. *Colour*, —? *Sculpture*, striæ of growth visible: 8 strongest spiral carinæ and 1 strong; 5 strongest and 1 strong in each interspace; and 2 stronger round the umbilicus: on the upper whorls 3. *Spire*, much depressed with convex outlines. *Whorls*, $3\frac{2}{3}$ rds, moderately rounded, with a deep suture. *Aperture*, semicircular, rather constricted behind the labrum, not expanded, very slightly detached from the body-whorl. *Labrum*, not produced above, smooth, rather double, inner edge sharp, the strongest lines terminating abruptly at the outer edge. *Labium*, very slightly curved to the right below, well detached from the body-whorl, lower than the plane of the labrum below. *Umbilicus*, very shallow and broad, much covered by the *labral lamella*, which is much and widely produced above. *Operculum*, —?

Height 0.038, greatest breadth 0.07, least breadth 0.054.

Named in compliment to P. P. Carpenter, Esq., of Warrington, author of an excellent Catalogue of the Mazatlan Shells in the British Museum.

PETITIA (? LEWISIA) BARRONIANA, Chitty.

Hab. —? (unique).

Form, globose-discoid. *Colour*, —? *Sculpture*, 20 spiral carinæ, 7 of which are rather more prominent, namely the 2nd, 4th, 8th, 12th, 16th, 18th and 19th: on the upper whorls, 6. Striæ of growth visible. *Spire*, much depressed, with straight outlines. *Whorls*, 4, moderately rounded, with a light suture. *Aperture*, much constricted at the labrum, semicircular, widely separated from the body-whorl. *Labrum*, not produced above, simple, thin, rather

double, slightly and coarsely pectinated on the inner edge, much thickened and slightly reflected. *Labium*, much reflected, moderately curved below, on a plane with the labrum above, lower below. *Umbilicus*, moderately deep, very broad, much concealed by the *labral lamella*, which spreads enormously and suddenly above, exteriorly convex (? *Lewisia*). *Operculum*, very deeply concave in the centre, finely granulated, upper margin broad, and indented on the labral side, and enormously spread convexly over the lower end of the labium; almost equal to the spread of the labral lamella, deeply grooved at the lower end, terminating in a linguiform projection.

Height 0.048, greatest breadth 0.084, least breadth 0.065.

Named in compliment to Charles Barron, Esq., Curator of the Royal Naval Museum, Haslar.

[To be continued.]

November 10, 1857.—Dr. Gray, F.R.S., V.P., in the Chair.

ON SEVERAL NEW SPECIES OF BIRDS FROM VARIOUS PARTS OF THE WORLD. BY JOHN GOULD, V.P., F.R.S. ETC.

Mr. Gould called attention to three species of Australian birds collected by Mr. Elsey during the recent expedition under A. C. Gregory, Esq., from the Victoria River on the north-west coast to Moreton Bay: two of these birds were of especial beauty and interest, viz. a *Psephotus* and a *Malurus*. The former is allied both to the *P. pulcherrimus* and *P. multicolor*, but differs from either, among other characters, by the rich yellow mark on the shoulder; and the *Malurus* is distinguished from all the other members of its genus by its larger size and by the beautiful lilac circlet which adorns the crown. The third species alluded to was a *Petroica*, allied to the *P. superciliosa*, a bird discovered by the late Mr. Gilbert in the neighbourhood of the Burdekin Lakes, and which with the present would admit of separation from the other species of the genus.

For the Parrakeet Mr. Gould proposed the name of

PSEPHOTUS CHRYSOPTERYGIUS.

Male.—Band across the forehead, extending above the eye to its posterior angle, very pale yellow; on the centre of the crown a patch of black; sides of the head, cheeks, neck, throat, upper portion of the abdomen, lower part of the back, rump and upper tail-coverts, verditer blue, somewhat greener on the cheeks and upper tail-coverts; immediately below the eye a tinge of yellow; back of the neck, back and scapularies, light greyish-brown, slightly tinged with green; shoulder and lesser wing-coverts fine yellow; primaries and secondaries black, margined externally with blue; feathers of the lower part of the abdomen, vent, and under tail-coverts, light scarlet, margined with greyish green; two centre tail feathers dark green at the base, passing into deep blue towards the extremity, and tipped with

dull black; the remaining tail feathers light green crossed by an irregular oblique band of dull bluish black, beyond which they become of a paler glaucous green, until they end in white; but each has a dark stain of bluish green on the outer margin near the tip; irides brown; bill and nostrils bluish horn-colour; feet mealy grey.

Total length, 11 inches; bill, $\frac{3}{8}$; wing, $4\frac{1}{4}$; tail, 7; tarsi, $\frac{1}{2}$.

Female.—Similar to the male in colour, but all the hues much paler, and the markings much less strongly defined.

Young.—In this state the whole of the head, all the upper surface, wing-coverts, throat, and breast are of a pale glaucous green; the rump and upper tail-coverts and the tail similar to the same parts in the male, but not so bright; and the lower part of the abdomen is greyish white, with faint stains of scarlet.

In the notes accompanying the specimens, Mr. Elsey states that they were procured on the 14th of Sept., 1856, in lat. 18° S. and long. $141^{\circ} 30'$ E., that their crops contained some monocotyledonous seeds, and that the *os furcatorium* was small, but well-developed; of this he was certain, as he had a discussion with Mr. Gregory on the subject, and dissected on the same day *Platycercus palliceps* and *Aprosmictus erythropterus*, and noticed that while the former was entirely destitute of that bone, and had only a weak ligamentous band in its place, the latter had a distinct *os furcatorium* closely resembling that of *Psephotus*. He remarked, too, that the flight of the *Psephotus* was swift and decided; and adds, that he never saw it on the ground, although the contents of its crop would indicate that it obtained its food there.

The Malurus Mr. Gould designated

MALURUS CORONATUS.

Male.—Crown of the head rich lilac purple, with a triangular spot of black in the centre, and bounded below by a band of velvety black, which commencing at the nostrils passes backwards through the eye, dilates upon the ear-coverts, and meets at the back of the neck; back and wings light brown; tail bluish green, becoming of a deeper hue towards the extremity; lateral feathers margined externally and tipped with white; under surface buffy white, becoming gradually deeper on the flanks and vent; irides brown; bill black; feet fleshy brown.

Total length, $6\frac{1}{2}$ inches; bill, $\frac{3}{4}$; wing, $2\frac{1}{4}$; tail, $3\frac{5}{8}$; tarsi, $1\frac{1}{8}$.

Female.—All the upper surface light brown; lores and space behind the eye white; ear-coverts chestnut; in other respects similar to the male.

Hab. Victoria River, North-Western Australia.

The Petroica he proposed to call

PETROICA? CERVINIVENTRIS.

All the upper surface, wings and tail chocolate-brown; line over the eye, throat, tips of the greater wing-coverts, base of the prima-

ries, base and tips of the secondaries, and tips of the tail, white; breast grey; abdomen deep fawn colour, becoming almost white in the centre; bill black; feet blackish brown; irides dark brown.

Total length, $6\frac{1}{2}$ inches; bill, $\frac{3}{4}$; wing, $3\frac{1}{4}$; tail, $3\frac{1}{4}$; tarsi, $\frac{7}{8}$.

Hab. Victoria River, North-western Australia.

The three birds above described are in the British Museum.

The next species to which Mr. Gould directed attention was a new Hawk belonging to the genus *Spilornis*, and which differs remarkably from the *S. undulatus* or Bacha of the continent of India, and the *S. holospilus* of Manilla.

For this bird he proposed the appellation of

SPILORNIS RUFIPECTUS.

Crown of the head and the lengthened feathers of the occiput deep black, the occipital plumes margined at the tip with rufous; feathers at the nape black, margined with rufous, showing conspicuously; all the upper surface and wings dark chocolate-brown, with paler edges; chin and sides of the neck greyish black; chest deep cinnamon-brown; primaries and secondaries blotched with white at intervals on their internal web; under wing-coverts, abdomen, vent, thighs, and under tail-coverts cinnamon-brown, crossed by bands composed of two large spots of white bounded above and below with a narrow line of black; tail dark brown, crossed near the base by a narrow and not very distinct band of greyish, and near the apex by broad bands of a lighter hue passing into whitish on the edges of the internal webs and narrowly edged at the tip with pale reddish-brown and white; bill blackish-brown; the cere, naked orbits, and feet appear to have been yellow.

Total length, $19\frac{1}{2}$ inches; bill, $1\frac{3}{8}$; wing, $13\frac{1}{4}$; tail, 9; tarsi, $2\frac{3}{4}$.

Hab. Celebes, vicinity of Macassar. From the collection of Mr. Wallace.

The next was a highly interesting species of Bullfinch, which he designated

PYRRHULA AURANTIACA.

Male. Bill, face, wings, and tail deep purplish-black; rump, upper and under tail-coverts white; the remainder of the upper and under surfaces rich reddish-orange, deepest above; the lesser wing-coverts are also reddish-orange, as is the apical half of the innermost of the greater wing-coverts, while the outer ones are slightly tipped with buffy-white; irides black; feet pinky-flesh colour.

Total length, $5\frac{1}{8}$ inches; wing, $3\frac{1}{4}$; tail, $2\frac{3}{4}$; tarsi, $\frac{5}{8}$.

Female. Has the black circle round the bill; head and neck ash-coloured; back ash colour, tinged with orange-red; lower parts like those of the male, but much less brilliant and approaching to olive.

For his knowledge of this pretty species Mr. Gould was indebted to the researches of Dr. A. Leith Adams of the 22nd Regiment, who killed it on the Western Himalayas, and who states that he

first met with it in the month of March 1852, on one of the wooded slopes of the Pir Pinjal Mountains, westward of the valley of Cashmere; its habits closely resemble those of *P. erythrocephala*, frequenting as it does thick bushy places, and being usually seen in small societies. It is not uncommon in the valleys and jungles around Cashmere. Dr. Adams remarks that, although the two species are so similar in their habits and in the localities they frequent, he never met with them in company; but noticed that while the *P. erythrocephala* was tolerably abundant in the ranges around Simla, the present species was only seen on the hills in the neighbourhood and to the westward of Cashmere. Its call is not so loud as that of *P. vulgaris*, and somewhat resembles the chirp of the Greenfinch, *Chlorospiza chloris*.

For a new Motmot Mr. Gould proposed the name of

MOMOTUS ÆQUATORIALIS.

Crown of the head deep black, surrounded by a zone of verditer green, to which succeeds a line of fine deep blue from the anterior portion of one eye round the occiput to the anterior portion of the other; to this succeeds a fringe of deep black from the nostrils round the back of the neck; lores, space below the eye and ear-coverts black, with a very fine fringe of blue on the lower edge and a small tuft of verditer green at its hinder extremity; all the upper surface green, washed with cinnamon on the shoulders; primaries green on their external webs, black on the inner; tail dark bluish-green; under surface green, washed with cinnamon and with a tuft of broad round black feathers, margined at their base with verditer green, in the centre of the breast; bill black; feet blackish-brown.

Total length, 16 inches; bill, $2\frac{1}{8}$; wing, $6\frac{1}{2}$; tail, $8\frac{3}{4}$; tarsi, $1\frac{1}{4}$.

Hab. Archidona, near the Equatorial line, on a branch of the Rio Napo.

Remark.—This is a large and robust species, and differs from all others in the broad spatulate feathers of the breast tuft.

A very fine *Odontophorus*, remarkable for the rich chestnut-red colouring of its under surface, received the appellation of

ODONTOPHORUS HYPERYTHRUS.

Crown of the head, wings, and upper surface of the body dark brown, minutely freckled with black; orbits naked, beset with minute white feathers continued in a stripe behind the eye; on the centre of the back and wing-coverts are large blotches of velvety-black; and at the tip of the innermost secondaries a small oval spot of buff; throat, sides of the chest, breast, and abdomen dark chestnut-red; vent, thighs, and under tail-coverts blackish-brown, indistinctly banded with dark sandy red; tail nearly black; bill and feet blackish-brown.

Total length, 10 inches; bill, $\frac{7}{8}$; wings, $5\frac{3}{4}$; tail, $2\frac{1}{2}$; tarsi, $2\frac{1}{8}$.

Hab. Santa Fé de Bogota.

Remark.—For this bird Mr. Gould is indebted to the Messrs.

Verreaux of Paris, who obtained it in a collection from Santa Fé de Bogota. In size it fully equals, if it does not exceed, *O. dentatus* and *O. speciosus*, from which latter it differs in the total absence of any black on the throat.

BOTANICAL SOCIETY OF EDINBURGH.

November 12, 1857.—Professor Balfour, V.P., in the Chair.

The Chairman gave an account of an excursion with some of his pupils to Arran. The party collected 500 species of plants, of which 1-25th consisted of true Ferns.

The following papers were read :—

1. "Notice of Abnormality in a Flower of *Lilium*," by J. Christian, Esq.

In this Lily there are ten sepals, eleven stamens, and two ovaries; the petiole is slightly flattened, and appears to be formed of two petioles united. The monstrous flower is undoubtedly formed, not by the growth of additional parts, nor by the splitting of organs during their development, but by the fusion of two flowers into one. According to this view, the number of parts should be as follows :—sepals, twelve; stamens, twelve; ovaries, two. Two of the sepals seem to be lost by adhesion, as is indicated by two of them presenting a slight cleft towards the apex, showing apparently that they are double. Add this number two to the number actually in the flower, ten, and we have the proper number, twelve. There were only eleven stamens. He is unable to account for the missing stamen further than by supposing that it may be due to adhesion or abortion.

2. "Short Notice of a peculiar form of Fungus," by James Young, M.D.

It was found by Dr. Young while assisting Mr. Edwards in the operation of excision of the knee-joint. The patient (an Irishman) was, after the operation, laid on a new and clean bed, with a hair-mattress, which had been previously covered with gutta-percha sheeting. The patient lay in considerable comfort for some days. The bed, however, became very soon damp, and it was found necessary to have him changed. On the fourteenth day after the operation, he was removed from the bed till the mattress was changed, and a new one substituted, when attention was directed to an extraordinary appearance on the under part of the bed, where the Fungus was produced in large quantity, growing both from the spar and from the mattress. The bed was thoroughly cleaned; but in spite of this, at the expiry of nine or ten days, the same appearance was again presented, the Fungus being nearly in equal quantity as before.

3. "Remarks on the above Fungus," by the Rev. M. J. Berkeley, M.A., F.L.S.

The Fungus is an imperfect state of some *Coprinus*. A similar case is reported in some Italian Transactions, and I recollect one